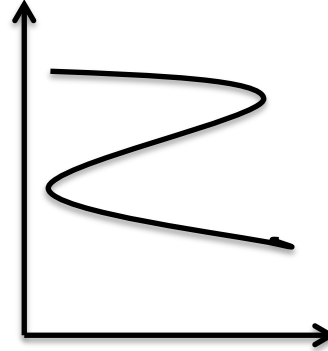


Name: _____ Date: _____ Period: _____

Unit 6 Practice Test

Determine whether each relation is a function. Explain, or show, why or why not in one sentence.

$(9, -1)$ $(5, 5)$ $(6, 2)$ $(0, -1)$ $(3, -5)$

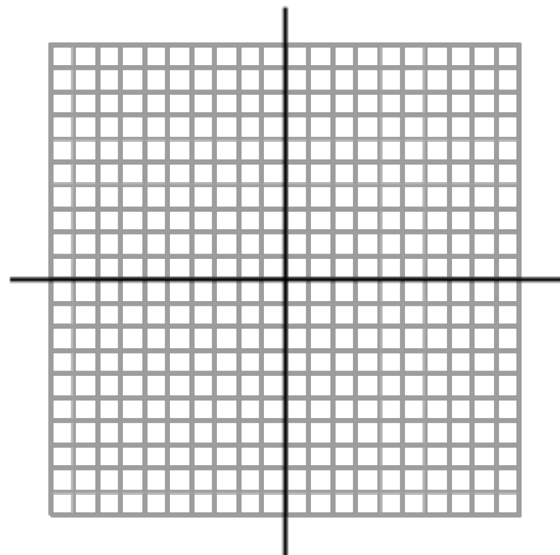
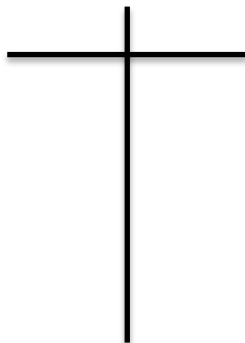


Find the range from the given domain $\{-3, 0, 1, 4\}$.

$$f(x) = -4x - 6$$

Create a table of values and graph the function.

$$f(x) = 2x - 1$$



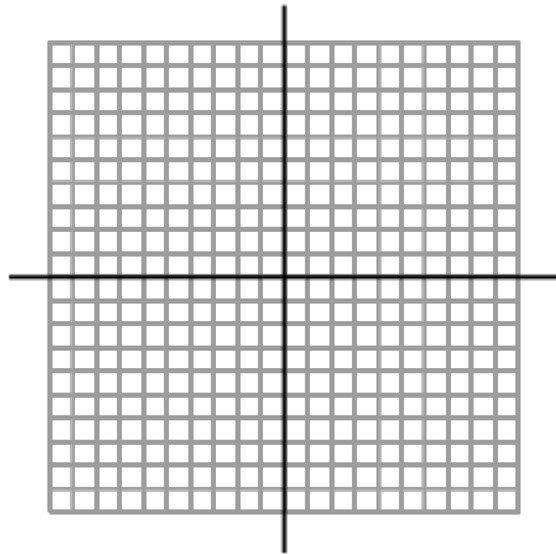
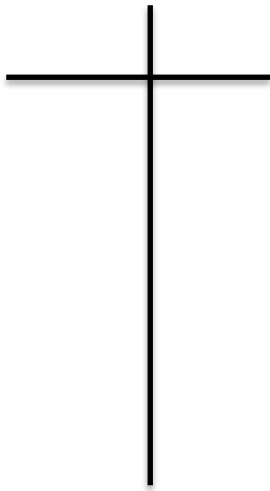
Situation. You set up a boot at Eastern Market to sell your pictures. You sold 3 pictures for \$45.

Write a function rule to describe this relationship.

Let ____ = _____ Let ____ = _____

Equation: _____

Model the function with a table of values and a graph.



Find the constant of proportionality in each equation.

$$-2y = 2x$$

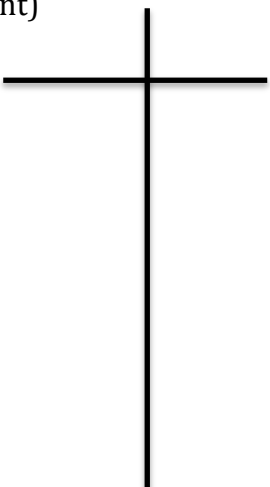
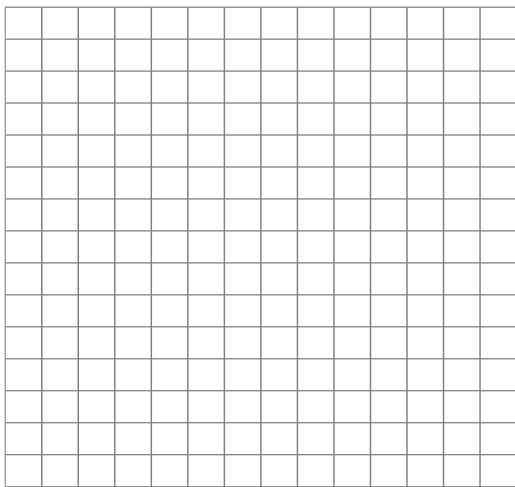
$$y - 7x = 0$$

Write an equation of the direct variation that includes the point $(-3, 9)$.

<table border="1"> <tr><td>x</td><td>y</td></tr> <tr><td>-1</td><td>4</td></tr> <tr><td>0</td><td>0</td></tr> <tr><td>2</td><td>-8</td></tr> <tr><td>3</td><td>-12</td></tr> </table>	x	y	-1	4	0	0	2	-8	3	-12	Direct Variation: yes or no Equation: _____		
x	y												
-1	4												
0	0												
2	-8												
3	-12												
You can type 15 words in one minute. How long will it take you to type a paper that has to be 900 words?													
If y varies directly with x, when x = 3 and y = 9, find x when y = 18.		If y varies inversely with x when x = 3 and y = 6, find y when x = 2.											
Determine if each equation is direction variation, inverse variation, or neither.													
$y = 6x$	$2y + 3 = 0$	$y = \frac{-3}{x}$	$y = 2x - 9$										

Decide if each data set represents a <i>direct variation</i> or an <i>inverse variation</i> . Then , write an equation to model the data.																			
<table border="1"> <tr><td>x</td><td>y</td></tr> <tr><td>3</td><td>10</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td>10</td><td>3</td></tr> </table>		x	y	3	10	5	6	10	3	<table border="1"> <tr><td>x</td><td>y</td></tr> <tr><td>2</td><td>4</td></tr> <tr><td>4</td><td>8</td></tr> <tr><td>-6</td><td>-12</td></tr> </table>		x	y	2	4	4	8	-6	-12
x	y																		
3	10																		
5	6																		
10	3																		
x	y																		
2	4																		
4	8																		
-6	-12																		
direct variation OR inverse variation		direct variation OR inverse variation																	
equation:		equation:																	

Find the constant of variation k for the inverse variation.	
$(12, 1)$	$x = 3$ when $y = 7$

<p>Situation: Your new job is at the Custom T Shop, where T-shirts are printed to order. For each order, Custom T Shop charges \$8.00 per shirt plus a one time set up fee of \$15.00.</p>	
<p>Write a function rule to describe this relationship.</p> <p>Let ____ = _____ Let ____ = _____</p> <p>Equation: _____</p>	
<p>Create a table of values. (1 point)</p> 	<p>(1 point)</p> 
<p>If you bought 8 t-shirts, how much will your final bill be?</p>	
<p>Your final bill was \$95, how many t-shirts did you buy?</p>	